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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,417	09/30/2003	Masahiro Yamanaka	SIC-02-009-1	8051
29863	7590	08/31/2004	EXAMINER	
DELAND LAW OFFICE P.O. BOX 69 KLAMATH RIVER, CA 96050-0069			LUONG, VINH	
			ART UNIT	PAPER NUMBER
			3682	

DATE MAILED: 08/31/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/676,417

Applicant(s)

YAMANAKA, MASAHIRO

Examiner

Vinh T Luong

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 35-56 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 35-56 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.


### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

  
Vinh T. Luong  
Primary Examiner

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/30/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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1. The preliminary amendment filed on September 30, 2003 has been entered.
2. The formal and corrected drawings were received on September 30, 2003. These drawings are objected to by the Examiner for the reason set forth below.
3. The drawings are objected to because the sectional views, such as, Figs. 2 and 5, do not show the hatching that indicates the materials of which the parts are made. See 37 CFR 1.84(h)(3) partially quoted below:

Hatching must be used to indicate section portions of an object, and must be made by regularly spaced oblique parallel lines spaced sufficiently apart to enable the lines to be distinguished without difficulty. Hatching should not impede the clear reading of the reference characters and lead lines. If it is not possible to place reference characters outside the hatched area, the hatching may be broken off wherever reference characters are inserted. Hatching must be at a substantial angle to the surrounding axes or principal lines, preferably 45°. A cross section must be set out and drawn to show all of the materials as they are shown in the view from which the cross section was taken. The parts in cross section must show proper material(s) by hatching with regularly spaced parallel oblique strokes, the space between strokes being chosen on the basis of the total area to be hatched. The various parts of a cross section of the same item should be hatched in the same manner and should accurately and graphically indicate the nature of the material(s) that is illustrated in cross section. The hatching of juxtaposed different elements must be angled in a different way. In the case of large areas, hatching may be confined to an edging drawn around the entire inside of the outline of the area to be hatched. Different types of hatching should have different conventional meanings as regards the nature of a material seen in cross section.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. *Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended.* The figure or figure number of an amended drawing

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should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the Examiner, the Applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter, such as, "a projection extending radially outwardly from one of the first and second end portions of the axle body" in claim 35. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction is required.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the Applicant regards as his invention.

6. Claims 35-56 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

It is unclear whether the recitation "a projection extending radially outwardly from one of the first and second end portions of the axle body" in claim 35 refers to the flange 366 in Figs. 2 and 3 or not. Although the specification describes the projection 412, however, the projection

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412 is not a part of the axle 59. See paragraphs [0030] and [0031] of the specification.

Applicant is respectfully urged to identify each claimed element with reference to the drawings.

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 35-56, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Yamanaka'543 (USP 5,845,543 issued on December 8, 1998).

Regarding claim 35, Yamanaka teaches a bicycle crank axle 5, 54 adapted to be rotatably supported within a bottom bracket 101, 102 of a bicycle frame 10 (Fig. 11), wherein the crank axle comprises:

an axle body 5 having first and second end portions 52A and 52B (Fig. 6); and

a projection/flange 55 extending radially outwardly from one of the first and second end portions 52A and 52B of the axle body 5 (Fig. 8), wherein the projection 55 is dimensioned and positioned to be located externally of the bottom bracket 101, 102 so as to abut against a laterally outer side surface 56 of a bicycle crank arm 1 to prevent the bicycle crank arm 1 from moving axially outwardly.

Claim 35 and other claims below are anticipated by Yamanaka because Yamanaka teaches each and every positive claimed element. *Ibid.*, column 4, line 1 *et seq.* On the other hand, it has long been held that the recitation that an element is “adapted to” perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 U.S.P.Q. 138 (CCPA 1946).

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Regarding claim 36, the projection 55 extends circumferentially along the axle body 5 as seen in Fig. 8.

Regarding claim 37, the projection 55 extends completely around the axle body 5 as seen in Fig. 8.

Regarding claim 38, Yamanaka's crank axle 5, 54 further comprises a plurality of splines 51A and 51B disposed at the one of the first and second end portions of the axle body 5.

Regarding claim 39, the plurality of splines 51A and 51B are disposed axially inwardly of the projection 55 (Fig. 8).

Regarding claim 40, the plurality of splines 51A and 51B are located in close proximity to the projection 55 (Fig. 8).

Regarding claim 41, the plurality of splines 51A and 51B are located directly adjacent to the projection 55. Note that the term "adjacent" does not require absolute contact, but requires relatively close position. *Ex parte Hadsel*, 109 USPQ 509 (Bd. Pat. App. & Inter. 1956).

Regarding claim 42, the plurality of splines 51A and 51B extend radially outwardly from an outer peripheral surface of the axle body 5 (Fig. 8).

Regarding claim 43, Yamanaka's crank axle 5, 54 further comprises a plurality of splines 51A or 51B disposed at the other one of the first and second end portions 52A and 52B of the axle body 5.

Regarding claim 44, the plurality of splines 51A and 51B do not extend radially outwardly from an outer peripheral surface (at 51A in Fig. 6) of the axle body 5.

Regarding claim 45, the plurality of splines 51A and 51B do not extend radially outwardly from an outer peripheral surface (at 51A in Fig. 6) of the axle body 5 located axially

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inwardly of the plurality of splines 51A and 51B.

Regarding claim 46, the other one of the first and second end portions 52A and 52B of the axle body 5 includes a threaded opening 53.

Regarding claims 47-49, see regarding claims 43-45.

Regarding claim 50, the projection 55 is disposed at the first end portion 52B of the axle body 5, and further comprising:

a plurality of first splines 51B disposed at the first end portion 52B of the axle body 5; and

a plurality of second splines 51A disposed at the second end portion 52A of the axle body 5.

Regarding claims 51-56, see regarding claims 39, 40, 44, 45, 36, and 37 above.

9. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure: Shimano's 584 (projection e of the axle 4) is cited.


10. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Vinh T. Luong whose telephone number is 703-308-3221. The Examiner can normally be reached on Monday, Tuesday, Thursday, and Friday.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, David Bucci can be reached on 703-308-3668. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Luong

August 22, 2004

  
Vinh T. Luong  
Primary Examiner